KENDRION INTORQ

Bridge-Half-Wave Rectifier
BEG-561-□□□-□□□ (-□)

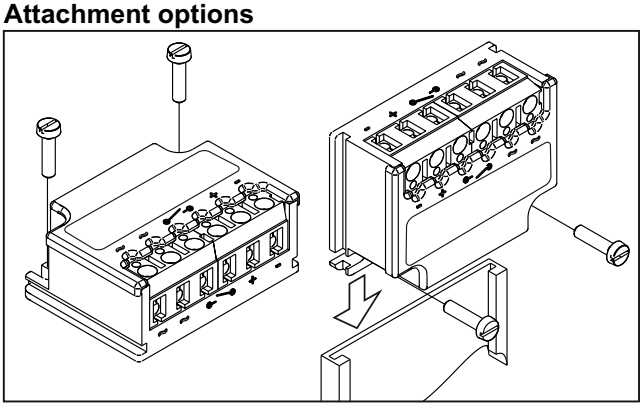
Please read this documentation before you start working!

The bridge-half-wave rectifiers conduce to supply electromagnetic spring-applied DC-brakes which are released for operation with such rectifers. Different application is only permitted with technical approval of INTORQ.
The bridge-half-wave rectifiers switch over from bridge rectification to half-wave rectification after a fixed overexcitation time. Depending on the load dimensioning, switching performance may be improved or power may be reduced.
Terminals 3 and 4 are located in the DC-circuit. The inductive voltage peak by DC-switching (see connection diagram "Shortened braking times") is limited by an integrated spark-suppressor on terminals 5 and 6.

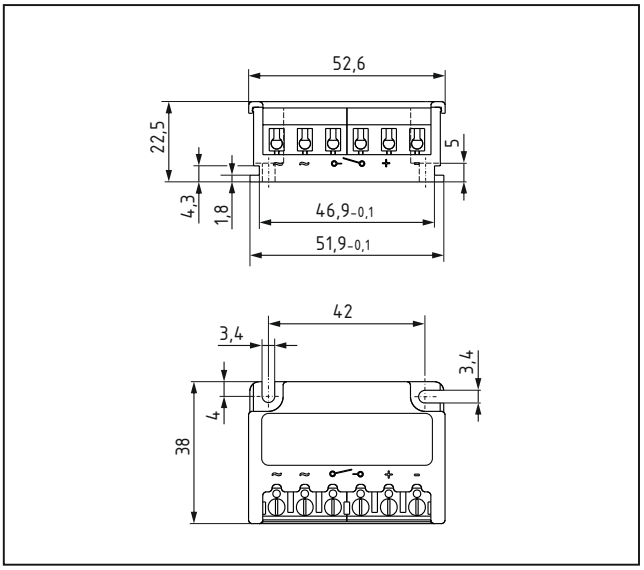
Stop!
Keep these instructions with the rectifier at all times!
Install rectifier in the switch cabinet if the ambient temperature is too high!
For equipment in residential, business or industrial areas (all usage areas that are directly connected to the public low voltage network) in order to adhere to the permitted interference voltage on mains power supply cables, an additional 100nF X-capacitor is required at the power supply terminals of models BEG-561-440-□□□ (-□)!

Danger
Always disconnect the equipment from the power supply when working on the rectifier!

Attachment options



Dimensions



Technical data

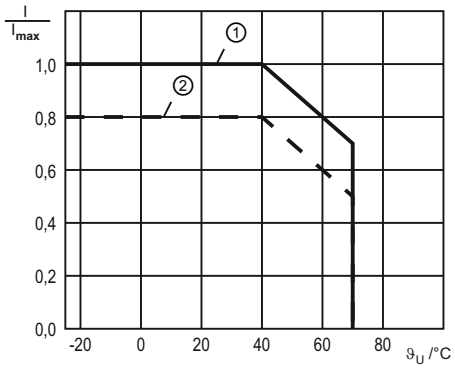
Rectifier type	Bridge-half-wave rectifier
Output voltage - bridge rectification	$0,9xU_1$
Output voltage - half-wave rectification	$0,45xU_1$
Ambient temperature (storage & operation / mounting)	-40 °C ... +70 °C / -20 °C ... +70 °C
Wire cross section	0,5 ... 2,5 mm² / AWG20 ... AWG16 (rigid/flexible)
Tightening torque	0,6 Nm (5,3 lbf in)
Stripping length	7 mm

U_1 Input voltage (40...60Hz)

Type	Input voltage U_1 (40...60 Hz) /V~			Max. current load I_{max} /A		Overexcitation time (±20 %) $t_{ü}$ /s			Switch-off voltage* (+10 %) U_i /V
	min.	nom.	max.	bridge	half-wave	at U_{1min}	at U_{1nom}	at U_{1max}	
BEG-561-255-030	160	230	255	3,0	1,5	0,430	0,300	0,270	150
BEG-561-255-130				3,0	1,5	1,870	1,300	1,170	150
BEG-561-440-006-1	230	400	440	1,5	0,75	0,110	0,060	0,060	150
BEG-561-440-030-1				1,5	0,75	0,500	0,300	0,270	150
BEG-561-440-130				3,0	1,5	2,300	1,300	1,200	150

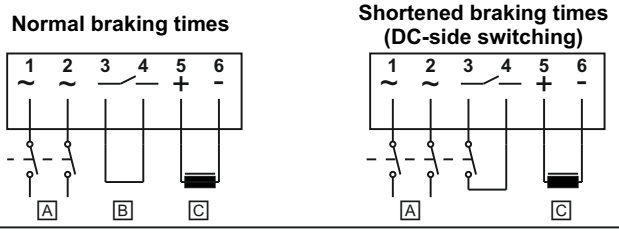
* Max. inductive voltage at DC-side switching; The switch-off voltage is always opposite to the applied coil voltage.

Permissible current load at ambient temperature



① If screwed to metal surface (good heat dissipation)
② Other type of installation (e.g. adhesive)

Connection



A mains B bridge C coil

Stop! Switch off at overexcitation
DC side switching (shorter braking times) must not be done during overexcitation. Frequent DC-side switching during overexcitation can destroy the rectifier.

Stop! Shortened braking times
With switching at the DC side (shorter braking times), switching must also take place at the AC side! Otherwise no overexcitation will occur when the equipment is switched on again.

Coil voltage selection

Rated coil voltage	Function
$U_{Sp} = 0,45xU_1$	Full overexcitation No holding current reduction
$0,45xU_1 < U_{Sp} < 0,90xU_1$	Partial overexcitation Partial holding current reduction
$U_{Sp} = 0,90xU_1$	No overexcitation Full holding current reduction

U_{Sp} Rated coil voltage U_1 Input voltage (40...60 Hz)

Modifications:

Drawn:	15.08.2023	Dunst	**Kendrion INTORQ GmbH** 31855 Aerzen	Drawing No. **D.BEG.0001** Id. no. 13066989 DE/EN	Page 2 of 2
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